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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21547.4-2008

**VMEbus extensions for instrumentation -- Part 4:
TCP/IP-IEEE488.2 instrument interface specification**

VEM总线对仪器的扩展 第4部分：TCP/IP-IEEE 488.2仪器接口规范
(English Translation)

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Foreword

GB/T 21547 "VME bus extension instrument" is divided into the following parts.

- Part 1. TCP/IP Instrument Protocol Specification
- Part 2. TCP/IP-VXI bus interface specification
- Part 3. TCP/IP-IEEE488.1 Interface Specification
- Part 4. TCP/IP-IEEE488.2 instrument interface specification this section GB/T Part of 421,547.

Structure and technical content and VXI-11.3 this section 1995, Rev1.0 consistent, just modify the following editorial.

- Increasing the standard name "Section 4";
- The section numbers A, B, C to 2,3;
- Acronyms given comments.

This part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee of the Fourth Technical Committee under the jurisdiction of the national industrial processes.

This section is drafted. Harbin Polytechnic University, Harbin Institute of Electrical Instrument.

1 Introduction

Test and measurement instruments will be connected to the needs of industry in the growing computer network. This connection requires either a local area network, it can also be a WAN. This specification is part of VXI3) bus series specifications, it shows how the instrument is directly connected to industrial standard Online. Communication and programming paradigms support this specification with IEEE488.2 devices support

technology is very similar in nature. Described in this specification ASCII protocol allows messages via TCP/IP network passed between controllers and devices. Readers should network, the Internet protocol suite, ONC RPC IEEE488.2 and other aspects of knowledge.

1.1 Scope

This specification is part of the series of VXI bus specification and defines a TCP/IP-IEEE488.2 interface devices.

1) VME. VERSA-bus-ModularEuropean

2) TCP/IP. TransmissionControlProtocol/InternetProtocol

3) VXI. VME-busExtensionforInstrumentation the only direct reference network of the present specification is the support network of the Internet protocol suite, defined in this specification techniques can be on another network use. Such as support for OSI standard network protocol, but this article does not address the relevant conversion. The upper specification using open Internet Protocol Suite Network Computing (ONC) remote procedure call (RPC).

TCP/IP-IEEE488.2 instrument interface can also support other network protocols.

1.2 Text Structure

The text is divided into two parts.

Part I. Introduction, the purpose is to make the reader familiar with the intent and scope of this article;

The second part. TCP/IP-IEEE488.2 instrument interface defined TCP/IP-IEEE488.2 instrument interface operation, including the GB/T 21547.1-2008 defined transformations between the internal network processing and equipment.

Objective 1.3 specification in addition to the purpose of GB/T 21547.1-2008 in the present specification has the following purposes.

1) the definition of TCP/IP-IEEE488.2 instrument interface operation.

2) to define transaction processing from the network to transform the internal operation of the device.

1.4 Terms and Definitions

This section with the GB/T 21547.1-2008 same terms and definitions as in other VXI bus specification, the following terms are used to distinguish the contents of each paragraph, these definitions and those Same IEEE1155-1992 defined.

1.4.1

The rule is to ensure compatibility within the system and the various cards that should be followed. Rules with "should" (SHALL) and "should not" (SHALLNOT) represented. These words only for the stated rules, not for other purposes.